

Application No. 10/822,548

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Currently amended) A method for constructing a part of a tooth using a hardened object, said method comprising:

(i) forming a hardenable object into a shape suited for reconstructing part of a tooth from a microwave curable polymer composition ~~comprising:~~

~~(a) multi functional polymers and monomers at least one member selected from the group consisting of mono functional methacrylate polymer, di functional methacrylate polymer, tri functional methacrylate polymer, mono functional methacrylate monomer, di functional methacrylate monomer, and tri functional methacrylate monomer, filler, coupling agent, initiator, plasticizer, and optionally additional additives for pigmenting; or~~

~~(b) a polymer matrix including a polymerizable resin adapted for use in an oral environment which contains at least one ester of unsaturated compounds; coupling agent; filler; initiator; and; optionally, additional additives for pigmenting; and~~

(ii) using a hand held microwave source to apply microwave energy to harden said hardenable object.

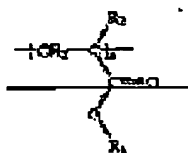
Application No. 10/822,548

2-32. (Canceled).

33. (Original) A method for forming a hardened object comprising:

(i) forming a hardenable object from a microwave curable composition comprising:

(a) at least one polymer including repeating monomer units represented by the formula



wherein

R_1 represents a hydrogen atom, an alkyl group, a substituted alkyl group, a benzyl group, a hydroxy alkyl group, a cyclic hydrocarbon, or an ether group,

R_2 represents a hydrogen atom, a halogen atom, an alkyl group, or a substituted alkyl group, and

n is an integer of 2 or more;

a curing agent; a filler; an initiator; a plasticizer; and, optionally, additional additives for pigmenting;

(b) at least one member selected from the group consisting of an organopolysiloxane and a phosphonitrile fluoroelastomer; filler; crosslinking agent; and, optionally, additional additives for pigmenting; or

(c) a polymer matrix including a polymerizable resin adapted for use in an

Application No. 10/822,548

~~oral environment; filler; initiator; coupling agent and, optionally, additional additives for pigmenting; and~~

(ii) using a hand-held microwave source to apply microwave energy to harden said hardenable object.

34-36. (Canceled).

37. (Original) A method for forming a hardened object comprising:

(i) forming a hardenable object from a microwave curable composition, said object when cured comprising a dental prosthesis or an orthodontic element, said ~~microwave curable composition comprising:~~

~~(a) at least one member selected from the group consisting of mono-functional methacrylate polymer, di-functional methacrylate polymer, tri-functional methacrylate polymer, mono-functional methacrylate monomer, di-functional methacrylate monomer, and tri-functional methacrylate monomer; curing agent, filler, initiator, plasticizer, and optionally, additional additives for pigmenting;~~

~~(b) at least one member selected from the group consisting of an organopolysiloxane and a phosphonitrile fluoroelastomer, filler, crosslinking agent, and optionally, additional additives for pigmenting; or~~

~~(c) a polymer matrix including a polymerizable resin adapted for use in an oral environment; filler, initiator, coupling agent, and, optionally, additional~~

Application No. 10/822,548

~~additives for pigments; and~~

(ii) using a hand-held microwave source to apply microwave energy to harden said hardenable object.

38. (Canceled).

39. (Original) A method according to claim 37, wherein said hardened object comprises a dental prosthesis.

40. (Original) A method according to claim 39, wherein said dental prosthesis comprises a composite resin filling, inlay, overlay, facing, veneer or orthodontic appliance.

41. (Original) A method according to claim 37, wherein said filler comprises organic filler or inorganic filler.